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EXAMINER	
KRASNIC, BERNARD	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/758,905	LAO ET AL.	
	Examiner	Art Unit	
	Bernard Krasnic	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 July 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. The amendment filed 7/16/2007 have been entered and made of record.

2. In response to the amendments filed on 7/16/2007:

The "Objections to the Drawings" have been entered and therefore the Examiner withdraws the objections to the drawings.

The "Objections to the abstract" have been entered and therefore the Examiner withdraws the objections to the abstract. The Applicant has not amended a few of the addressed objections to the specification and therefore the Examiner has once again addressed these issues.

The "Objections to the claims" have been entered, but the Applicant has not amended a few of the addressed claim objections and therefore the Examiner has once again addressed these issues.

The "Claim rejections under 35 U.S.C. 101" have been entered, but the Applicant has not amended a few of the addressed 35 U.S.C. 101 issues and therefore the Examiner has once again addressed these issues.

The "Claim rejections under 35 U.S.C. 112, second paragraph" have been entered, but the Applicant has not amended a few of the addressed 35 U.S.C. 112 second paragraph issues and therefore the Examiner has once again addressed these issues.

3. Applicant's arguments with respect to claims 1-26 have been considered but are moot in view of the new ground(s) of rejection necessitated by the Applicants amendment toward independent claims 1, 13, and 23-26.

4. Applicant's arguments filed 7/16/2007 have been fully considered but they are not persuasive.

The Applicant alleges, "One or more embodiments of the present invention ..." in page 16, "Accordingly, amended independent claim 1 ..." in page 17, and "In contrast, Center fails ..." in page 17, and states respectively that the parameters for correcting images are for example set in advance for a plurality of classes such as a race, an age, and a sex and that the art reference Center does not use an attribute of a person such as a race, an age, and a sex but uses instead color analysis and template matching. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., attributes of a person such as a race, an age, and a sex) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

The Applicant alleges, "Specifically, regarding the color analysis ..." in page 17 and "Regarding a template matching ..." in pages 17-18, and states respectively that Center discloses a color analysis method that uses a lookup table to determine the likelihood that each pixel in the current image is a color of human skin and a template matching method that uses a number of templates that may be used to represent all of

the variations in appearance of the object, which does not necessarily teach "the table stores a plurality of sets of parameters that are respectively optimized based on each attribute of a person ..." as stated in the amended independent claims. The Applicant also states that "the fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic" in page 18. The Examiner firstly disagrees because no inherency is used for the teachings of Center when making the art rejection. When Center states "A number of templates **may** be used to represent all of the variations in appearance of the object" (Center, paragraph [0028], lines 6-7), it is not the Examiner making an inherency argument but rather it is Center stating the **fact** that templates may be used to represent all of the variations in the appearance of the object. Since Center clearly states that the templates that represent the range of appearance for a particular user are used to search for a face to achieve greater detection accuracy (Center, paragraph [0028]), Center clearly teaches the amended limitation of a parameter selecting part for selecting a set of parameters from a table based on the attributes of a person inferred by the inference part, wherein the table stores a plurality of sets of parameters that are respectively optimized based on each attribute of a person, and stored in the one of an internal memory and a predetermined storage medium. The amended limitation of the table storing a plurality of sets of parameters that are respectively optimized based on each attribute of a person is clearly taught by Center's selection of a number of templates representing the variations in appearance of the particular user to achieve the greater detection accuracy. Similarly, Center also uses a lookup table for skin

probability that senses values which are close to the skin tones of a particular user by using a trained table instead of a default table [this option of choosing the trained table of the skin tones attributes of a person is optimal for a particular person (a regular user) when compared to the default table which gives a lower probability to sense a regular particular person] (Center, paragraph [0047]). Therefore, the Examiner secondly disagrees with the Applicant because Center clearly does teach the amended limitation as discussed above. The only aspect that Center is silent in teaching is the storing of the selected parameters, which would have been obvious to one of ordinary skill in the art at the time of the invention because the selected templates need to be stored in the internal memory in order to be accessed and used later on for Centers face recognition tracking system.

The Applicant alleges, "Thus, Center does not ..." in page 18, and states respectively that Center does not show or suggest a table that includes optimized parameters based on attributes of a person. However the Examiner disagrees because as discussed above, Center teaches (for color analysis) a lookup table which is trained [optimal over the default table] for a particular person [regular user] having the parameters based on attributes of a person [skin color tones for the range of the persons appearance]. Center also teaches (for template matching method) selecting the templates [parameters] from a number of templates [table] [optimal because Center tries to achieve the greater detection accuracy] tuned to recognize a particular person using the range of appearance or a particular user [parameters based on attributes of a

particular person]. Therefore Center clearly does teach the amended limitation of a table that includes optimized parameters based on attributes of a person.

Similarly independent claims 13 and 23-26 are not patentably distinguishable over the cited Center reference. Therefore, dependent claims 2-12 and 14-22 are not in accordance for allowance.

Specification

5. The disclosure is objected to because of the following informalities:

Page 1, line 4: The -- CROSS REFERENCE TO RELATED APPLICATIONS -- section of the specification is required to be place above the "BACKGROUND OF THE INVENTION" to inform of any related applications, in this case the Foreign Priority application "Japan 009285/2003 01/17/2003".

Appropriate correction is required.

Claim Objections

6. Claims 8 and 20 are objected to because of the following informalities:

Claims 8 and 20, line 2 respectively: "performing a operation" should be -- performing an operation --.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

7. Claims 23 and 24 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 23 and 24 are drawn to functional descriptive material NOT claimed as residing on a computer readable medium. MPEP 2106.IV.B.1(a) (Functional Descriptive Material) states:

> "Data structures not claimed as embodied in a computer-readable medium are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer."
>
> "Such claimed data structures do not define any structural or functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized."

Claims 23 and 24, while defining a "program stored on computer-readable medium to be executed by an image pickup device", do not define a "computer-readable medium" using the appropriate claim language and is thus non-statutory for that reasons. A program can range from paper on which the program is written, to a program simply contemplated and memorized by a person. The limitation "A program stored on computer-readable medium to be executed" should be -- A computer-readable medium encoded with a computer program to be executed --.

"In contrast, a claimed computer-readable medium encoded with the data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory." - MPEP 2106.IV.B.1(a)

Appropriate correction is required.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 12-22, 24 and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re Claim 12, line 6: The limitation "object, the link information" lacks clear antecedent basis. It is suggested to be -- object, a link information --.

Re Claim 13, lines 8-9, claim 24, line 8 respectively: The limitation "objects and the information required" lacks clear antecedent basis. It is suggested to be -- objects and information required --.

Claims 14-22 are dependent upon claim 13.

Re Claim 13, line 7: The limitation "holding the feature amount" lacks clear antecedent basis. It is suggested to be -- holding a feature amount --.

Re Claim 24, line 7, claim 26, line 6 respectively: The limitation "registering the registration information on the feature amount" lacks clear antecedent basis. It is suggested to be -- registering a registration information on a feature amount --.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. Claims 1-3, 5-12, 23, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Center (US 2002/0113862 A1, as applied in previous Office Acton). Re Claim 1: Center discloses an image pickup device / videoconferencing system (see paragraph [0002], [0027], [0018], abstract) comprising an image pickup unit / camera including a lens / lens of camera and an image sensor / camera sensors such as zoom and focus sensors, and a control unit / computer system connected to camera for processing an image picked up by the image pickup unit and storing a processed image in one of an internal memory / memory of camera and computer system RAM or a predetermined storage medium (see Fig. 1, paragraphs [0018], [0003], and [0027], the computer is connected to the camera and they interact in real time since this is video conferencing), the control unit comprising a face image extraction part / locate face for extracting a face image contained in the image picked up by the image pickup unit (see Fig. 1, paragraphs [0018] and [0019]); an inference part / evaluate image quality for executing a process of inferring / evaluating attributes / information or characteristics of

a person constituting an object based on feature amounts / color or motion analysis in an image area including the face image extracted (see paragraphs [0020], [0025], and [0004]); a parameter selecting part for selecting a set of parameters / skin color tones or templates from a table based on the attributes / information or characteristics or range of appearance of a person inferred by the inference part, wherein the table stores a plurality of sets of parameters that are respectively optimized based on each attribute of a person {see paragraphs [0028] and [0047], Center teaches (for color analysis) a lookup table which is trained [optimal over the default table] for a particular person [regular user] having the parameters based on attributes of a person [skin color tones for the range of the persons appearance], Center also teaches (for template matching method) selecting the templates [parameters] from a number of templates [table] [optimal because Center tries to achieve the greater detection accuracy] tuned to recognize a particular person using the range of appearance or a particular user [parameters based on attributes of a particular person]}; an image pickup conditions adjusting part / adjust and control the camera for adjusting image pickup conditions / brightness, contrast and color balance based on the selected parameters by the parameter selecting part (see Fig. 1, paragraph [0020], [0028], [0047]); and an information processing part / processing pass for storing in selected one of the memory and the storage medium / computer system RAM the image obtained / current frame or adjusted frame under the image pickup conditions adjusted by the image pickup conditions adjusting part (see paragraphs [0020], [0026], and [0027], the computer

stores a current frame and does the evaluation of this information and then uses and produces an adjustment based on the evaluation and stores this adjustment frame).

Although Center is silent in teaching the storing of the selected parameters in one of an internal memory and a predetermined storage medium, it would have been obvious to one of ordinary skill in the art at the time the invention was made because the selected templates need to be stored in the internal memory in order to be accessed and used later on for Centers face recognition tracking system.

Re Claim 2: Center further discloses an inference part / evaluate image quality for executing the inference / evaluation of at least one of the race, age and sex as the attributes / range of appearance (see [0028], lines 4-9, [0048], the evaluation includes any combination of the template matching, motion detection, background differencing, and color analysis, in this case the template matching searches for a face using templates that represent the range of appearance of the different types of faces which are known as eigenfaces and these eigenfaces typically use race and sex).

Re Claim 3: Center further discloses wherein the information processing part / processing pass includes a part for producing a link information / hypothesis containing a position / location of the face image extracted by the face image extraction part / locate face and the inference information / evaluation information obtained by the inference process / evaluation executed by the inference part, and wherein the link information / hypothesis is stored in selected one of the memory and the storage

medium / computer system RAM together with the image / current frame picked up by the image pickup unit (see paragraph [0048], lines 5-9).

Re Claim 5: Center further discloses wherein the control unit / computer system includes a focal length adjusting part for adjusting the focal length of a lens of the image pickup unit / camera in accordance with the result of extraction by the face image extraction part / locate face (see paragraph [0004], lines 5-8, once the face is extracted and detected and the computer system adjusts the camera to automatically focus based on the detection and evaluation results).

Re Claim 6: Center further discloses comprising a first operating unit / results Pyramid of visual detector for designating a range / location and size of extracting a face image, wherein the face image extraction part / locate face includes a part for limiting the face image extraction area in the image picked up by the image pickup unit / camera in accordance with the designating operation of the first operating unit (see paragraphs [0050] and [0004], with the range specified by the visual detector the camera is adjusted by focusing and zooming to the correct location and size of the face).

Re Claim 7: Center further discloses comprising a first operating unit / color analysis for designating a deletion / remove and substitute of the result / skin probability of extracting a predetermined part / area of skin of the face image extracted, wherein the face image extraction part / locate face includes a part for updating the result of

extracting the face image in accordance with the designating operation of the first operating unit (see paragraphs [0004], [0046], and [0047], an update of the face area parameters of the color analysis is accomplished by the deletion of skin probability in the lookup table followed by the addition or substitution from the user and it is these parameters which update and adjust the brightness, contrast and color balance of the image).

Re Claim 8: Center further discloses comprising a first operating unit for performing a operation of correcting / adjusting the inference information / information or characteristics of a person obtained by the inference process of the inference part / evaluate image quality, wherein the information processing part / processing pass includes a part for correcting the inference information in accordance with the correcting operation of the third operating unit (see paragraphs [0026] and [0020], abstract, the processing passes which are the template matching, motion detection, background differencing, and color analysis adjust the information of the face, paragraphs [0046] and [0047], the color analysis pass looks up and adjusts the skin area table values U and V for proper probability calculations, the U and V values are related to the color information as seen in [0027] lines 17-19).

Re Claim 9: Center further discloses comprising a first operating unit / camera parameter unit for correcting the image pickup conditions / brightness, contrast and color balance adjusted by the image pickup conditions adjusting part / adjust and control

the camera, wherein the image pickup conditions adjusting part includes a part for readjusting the image pickup conditions in accordance with the correcting operation of the first operating unit (see Fig. 1, paragraph [0004], lines 5-13, paragraph [0020]).

Re Claim 10: Center further discloses the information processing part / processing pass includes a part for determining a direction / location of the face of an object in the image based on the result of extraction of the image stored in selected one of the memory and the storage medium by the face image extraction part / locate face, and a part for rotating / tilt movable camera the image in such a manner that the face direction conforms with a predetermined reference direction in the case where the determined face direction is different from the reference direction (see [0024], the wide-angle movable camera may tilt).

Although Center doesn't specifically recite the limitation of determining the direction of the face and conforming the determined direction with the reference direction, it would be obvious to one of ordinary skill in the art at the time the invention was made to include this limitation in the processing pass in order to actually have Center's wide-angle movable camera tilt in the appropriate direction to actually optimize the face location detector (Center, paragraph [0024]).

Re Claim 11: Center further discloses comprising a feature amount / skin color probability storage part for storing the feature amount of the face image already extracted, wherein the face image extraction part includes a specified image extraction

part / locate face for extracting an image area including the feature amount of the specified face image stored in the feature amount storage part from the image picked up by the image pickup unit (see paragraph [0046], lines 22-27, a skin color probability is stored in colorPyramid after the face is extracted from the current incoming image and after it goes through the color analysis processing pass).

Re Claim 12: Center further discloses comprising an object storage part / computer system RAM for storing the feature amount / skin tone color probability of the face image of a specified object / user or users, wherein the information processing part / processing pass compares / evaluates for modification the feature amount / skin tone color probability of the face image extracted by the face image extraction part / locate face with the feature amount / skin color probability stored in the object storage part / computer system RAM, so that in the case where the comparing process shows that the extracted face image is that of the specified object, the link information / hypothesis containing the inference information / information or characteristics of a person obtained by the inference process of the inference part / evaluate image quality and the information / U and V values for identifying the specified object / current face image is produced and stored in selected one of the memory and the storage medium / computer system RAM together with the image picked up / current image by the image pickup unit (see Fig. 1, [0046], lines 22-27, [0047], lines 1-5, [0048], lines 5-9, [0050]).

As to claims 23 and 25, the claims are the corresponding computer-readable medium and method to system claim 1 respectively. The discussions are addressed with regard to claim 1.

12. Claims 13-15, 17-22, 24 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Center in view of Soriano ("Making saturated facial images useful again", a Non-patent literature reference supplied by the Applicant, as applied in previous Office Action).

Re Claim 13: Center discloses an image pickup device / videoconferencing system (see paragraph [0002], [0027], [0018], abstract) comprising an image pickup unit / camera including a lens / lens of a camera and an image sensor / camera sensors such as zoom and focus sensors; a control unit / computer system connected to the camera for processing an image picked up by the image pickup unit and storing processed image in selected one of an internal memory / memory of camera or computer system RAM and a predetermined storage medium (see Fig. 1, paragraphs [0018], [0003], and [0027], the computer is connected to the camera and they interact in real time since this is video conferencing), the control unit comprising a registration part / skin tone color probability lookup table for holding the feature amount / skin tone color probability of a face image of each of a predetermined number of objects / users (see [0047], lines 1-5, a predetermined number of objects are a multiple number of users) and the information required for adjusting the optimum image pickup conditions / optimum brightness,

contrast and color balancing in correspondence with identification information / skin tone color unique to the object, a face image extraction part / locate face for extracting a face image contained in the image picked up by the image pickup unit (see Fig. 1paragraphs [0018] and [0019]); an inference part / evaluate image quality for inferring / evaluating attributes / information or characteristics of a person by comparing the feature amount / color or motion analysis of the face image extracted by the face image extraction part with the information registered in the registration part (see paragraphs [0020], [0025], and [0004]); a parameter selecting part for selecting a set of parameters / skin color tones and templates from a table based on the attributes / information or characteristics or range of appearance of a person inferred by the inference part, wherein the table stores a plurality of sets of parameters that are respectively optimized based on each attribute of a person {see paragraphs [0028] and [0047], Center teaches (for color analysis) a lookup table which is trained [optimal over the default table] for a particular person [regular user] having the parameters based on attributes of a person [skin color tones for the range of the persons appearance], Center also teaches (for template matching method) selecting the templates [parameters] from a number of templates [table] [optimal because Center tries to achieve the greater detection accuracy] tuned to recognize a particular person using the range of appearance or a particular user [parameters based on attributes of a particular person]}; an image pickup conditions adjusting part / adjust and control the camera for adjusting the image pickup conditions / brightness, contrast and color balance for the image pickup unit based on the selected parameters by the parameter selecting part (see Fig. 1, paragraph [0020], [0028],

[0047]); and an information processing part / processing pass for storing in selected one of the memory and the storage medium / computer system RAM the image obtained under the image pickup conditions adjusted by the image pickup conditions adjusting part (see paragraph [0020], [0026], and [0027], the computer stores a current frame and does the evaluation of this information and then uses and produces an adjustment based on the evaluation and stores this adjustment frame).

Although Center is silent in teaching the storing of the selected parameters in the one of an internal memory and a predetermined storage medium, it would have been obvious to one of ordinary skill in the art at the time the invention was made because the selected templates need to be stored in the internal memory in order to be accessed and used later on for Centers face recognition tracking system.

However, Center fails to disclose or fairly suggest specifically that a registration part holds the information required for adjusting the optimum image pickup conditions in correspondence with identification information unique to the object.

Soriano discloses information / ideal condition value required for adjusting the optimum image pickup conditions / brightness, contrast, and color balancing (Center discloses these pickup conditions) in correspondence with identification information / skin tone color (Center discloses this information) unique to the object (Soriano, Section 2.2 Color Correction by RGB eigenfaces, Section 3.1 Physics-Based Face Database, abstract, lines 6-8, the pickup conditions are adjusted to the ideal condition values to recover color information in facial images taken under non-ideal conditions).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Center's device using Soriano's teachings by including the information required for adjusting the pickup conditions to Center's registration part in order to recover color information in facial images taken under non-ideal conditions (Soriano, abstract, lines 6-8).

As to claim 15, the discussions are addressed with respect to claim 3.

As to claim 17, the discussions are addressed with respect to claim 5.

As to claim 18, the discussions are addressed with respect to claim 6.

As to claim 19, the discussions are addressed with respect to claim 7.

As to claim 20, the discussions are addressed with respect to claim 8.

As to claim 21, the discussions are addressed with respect to claim 9.

As to claim 22, the discussions are addressed with respect to claim 10.

As to claims 24 and 26, the claims are the corresponding computer-readable medium and method to system claim 13 respectively. The discussions are addressed with regard to claim 13.

Re Claim 14: Center further discloses the control unit / computer system includes a part / automatic gain control (AGC) for receiving the input of the information required (taught by Soriano above) for adjusting the optimum image pickup conditions / optimum brightness, contrast, and color balancing and the identification information / skin tone

color of the object in response to an image pickup operation / processing pass of a predetermined object for registration in the registration part / skin tone color probability lookup table, and storing / computer system RAM the input information in the registration part together with the face image of the object (see [0003]-[0004], [0046]-[0048], and [0050]).

Although Center's AGC is part of the camera and not part of the control unit or computer system, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have an AGC type component built into a computer and controlled by the computer in order for the color correction or adjustment to meet its highest quality by having the automatic gain control type component be dynamically adjusted by the computers inputs.

13. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Center as applied to claim 1 above, and further in view of Aoki (EP 1158786 A2, as applied in the previous Office Action). The teachings of Center have been discussed above.

However Center fails to disclose or fairly suggest a distance recognition part.

Aoki discloses comprising a distance recognition part / distance calculator for recognizing the distance to an object / user's face, wherein the face image extraction part / face detector includes a part for specifying a size / size filling the monitor of the face image to be extracted, based on the result of recognition by the distance recognition part (see paragraphs [0132]-[0134]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Center's device using Aoki's teachings by including the distance recognition part for resizing in order to locate and display the face fully onto the monitor (Aoki, [0132]).

14. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Center as modified by Soriano as applied to claim 13 above, and further in view of Aoki (EP 1158786 A2, as applied in the previous Office Action). The teachings of Center as modified by Soriano have been discussed above.

However Center as modified by Soriano fails to disclose or fairly suggest a distance recognition part.

Aoki discloses comprising a distance recognition part / distance calculator for recognizing the distance to an object / user's face, wherein the face image extraction part / face detector includes a part for specifying a size / size filling the monitor of the face image to be extracted, based on the result of recognition by the distance recognition part (see paragraphs [0132]-[0134]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Center's device, as modified by Soriano, using Aoki's teachings by including the distance recognition part for resizing in order to locate and display the face fully onto the monitor (Aoki, [0132]).

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernard Krasnic whose telephone number is (571) 270-1357. The examiner can normally be reached on Mon-Thur 8:00am-4:00pm and every other Friday 8:00am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jingge Wu can be reached on (571) 272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Bernard Krasnic
August 30, 2007

JINGGE WU
SUPERVISORY PATENT EXAMINER